

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification			DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY			R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-7			NAT'L SHIPBLDG RES PROG ADV SHIPBLDG ENTERPRISE/0708730N					
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	14.086	10.172	0.000	0.000	0.000	0.000	0.000	0.000
Automatic Identification Technology/9441	2.699	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NSRP/ASE/2466/2811	9.657	10.172	0.000	0.000	0.000	0.000	0.000	0.000
Maritime Tech, Ship Design & Sys Develop Init/9121	1.730	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Defense Emergency Response Funds (DERF) Funds: N/A								
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
Project 2466/2811 (NSRP ASE): The mission of the National Shipbuilding Research Program Advanced Shipbuilding Enterprise (NSRP ASE) is to manage and focus national research funding on technologies that will enhance U.S. commercial shipbuilding and ship repair competitiveness and reduce the cost of naval ships, construction, modification and repair. Industry has developed a landmark long range Strategic Investment Plan which will guide NSRP ASE investments. This Strategic Investment Plan provides a framework to guide collaborative research and development among all segments of the U.S. ship construction and repair industry, educational and research institutions, and Government. The objective is to assist the industry in achieving significant reduction in the cost and time required for both commercial and Navy ship construction, conversion, and repair. The recommended investment portfolio includes major initiatives that tie the strategic vision to proposed industry research through collaborative R&D. The major initiatives include: Shipyard Production Process Technologies, Business Process Technologies, Product Design and Material Technologies, Systems Technologies, Facilities and Tooling. Additionally, several critical success factors were found to cut across all of the major initiatives. These "Crosscut Initiatives" include Education and Training, Technology Transfer, Organizational Change, Environmental Protection and Human Resources. The collaboration of major shipyards that lead the program are: General Dynamics Electric Boat Corporation, General Dynamics Bath Iron Works, Northrop Grumman Newport News, Atlantic Marine, Northrop Grumman Ship Systems Ingalls, Halter Marine, Northrop Grumman Ship Systems Avondale, General Dynamics National Steel and Shipbuilding, Todd Pacific, Bollinger Shipyards and Bender Shipbuilding.								
Project 9121 (Maritime Technology, Ship Design and Systems Development Initiative): Develop a cooperative research effort to improve the quality of shipyard products, efficiency of shipyard production and introduce advanced ship system designs. Thrust areas for this effort include: 1) Lean/agile manufacturing; 2) Shipyard Production Process Automation; 3) Shipyard Production Process Improvement; 4) Ship Design and Production Simulation and Visualization; 5) Education and Training; 6) Application of Advanced Materials to Ship Design and Manufacturing; 7) Design and Application of Advanced Ship Systems. A team of Navy, University of New Orleans, and Northrop Grumman Ship Systems (Avondale) personnel will prioritize potential research projects supporting these thrust areas and oversee project execution to ensure program goals are being met.								

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EXHIBIT R-2, RDT&E Budget Item Justification					DATE: FEBRUARY 2005			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5				R-1 ITEM NOMENCLATURE 0708730N Maritime Technology/9441				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE0708730N Cost	2.699	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Automatic Identification Technology	2.699	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	Not Applicable							
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Navy Automatic Identification Technology (AIT) Engineering Support Center (ESC) will support the Navy AIT Project Office (NAVSUP) customers comprised of 35 Navy-wide Echelon II and subordinate commands with AIT integration into supply chain business processes and automated information systems to enhance Fleet readiness and improve logistics								
(U)B. JUSTIFICATION OF BUDGET ACTIVITY: This is a new Congressional Add.								
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7				PROJECT NUMBER AND NAME 9121/Maritime Tech, Ship Design & Systems Development Initiative				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	1.730	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: <p>Develop a cooperative research effort to improve the quality of shipyard products, efficiency of shipyard production and introduce advanced ship system designs. Thrust areas for this effort include: 1) Lean/agile manufacturing; 2) Shipyard Production Process Automation; 3) Shipyard Production Process Improvement; 4) Ship Design and Production Simulation and Visualization; 5) Education and Training; 6) Application of Advanced Materials to Ship Design and Manufacturing; 7) Design and Application of Advanced Ship Systems. A team of manufacturing; 2) Shipyard Production Process Automation; 3) Shipyard Production Process Improvement; 4) Ship Design and Production Simulation and Visualization; 5) Education and Training; 6) Application of Advanced Materials to Ship Design and Manufacturing; 7) Design and Application of Advanced Ship Systems. A team of Navy, University of New Orleans, and Northrop Grumman Ship Systems (Avondale) personnel will prioritize potential research projects supporting these thrust areas and oversee project execution to ensure program goals are being met.</p>								

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7	PROGRAM ELEMENT NUM 0708730N/NSRP ASE	PROJECT NUMBER AND NAME 9121/Maritime Tech, Ship Design & Systems Development Initiative		
B. Accomplishments/Planned Program				
	FY 04	FY05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px;">Project funding has been received, added to the Gulf Coast Region Maritime Technology Center Cooperative Agreement and research projects have been initiated. Projects currently underway include: Shipboard Applications of Lightweight Ship Structures; Socket Welding of Titanium Grades Using GTAW with Flux Assist; Short Robot Production Runs; Ship Works Robotics Laboratory Vision System; Lean Six Sigma in Shipbuilding; Avondale Manufacturing Process Modeling. All projects are being performed jointly by the University of New Orleans and Northrop Grumman Ship Systems Avondale Operations to support Navy ship programs such as LPD-17.</div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px;">Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.</div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.730			
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px;">Funds will be provided to the Gulf Coast Region Maritime Technology Center Cooperative Agreement for projects in the following thrust areas: 1) Lean/agile manufacturing; 2) Shipyard Production Process Automation; 3) Shipyard Production Process Improvement; 4) Ship Design and Production Simulation and Visualization; 5) Education and Training; 6) Application of Advanced Materials to Ship Design and Manufacturing; 7) Design and Application of Advanced Ship Systems. A team of Navy, University of New Orleans, and Northrop Grumman Ship Systems (Avondale) personnel will prioritize potential research projects supporting these thrust areas and oversee project execution to ensure program goals are being met.</div>				

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EXHIBIT R-2a, RDT&E Project Justification			DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDTE, N/BA-7	0708730N/NSRP ASE	9121/Maritime Tech, Ship Design & Systems Development Initiative		
C. PROGRAM CHANGE SUMMARY:				
Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY2005 President's Budget	1.800	0.000		
FY 2006/2007 President's Budget	1.730	0.000		
Total Adjustments	-0.070	0.000	0.000	0.000
Summary of Adjustments				
SBIR/STTR Transfer	-0.048			
Economic Assumptions	-0.015			
Non Pay Inflation Savings	-0.002			
Management Improvements	-0.005			
Subtotal	-0.070			
Schedule:				
Not Applicable.				
Technical:				
Not Applicable.				

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7		PROGRAM ELEMENT NUMBER AND NAME 0708730N/NSRP ASE			PROJECT NUMBER AND NAME 9121/Maritime Tech, Ship Design & Systems Development Initiative					
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	To Complete	Total Cost
None.										
E. ACQUISITION STRATEGY:										
R&D will be executed through the Gulf Coast Region Maritime Technology Center Cooperative Agreement with the University of New Orleans.										
NOTE: No funding has been received through the Emergency Response Fund, Defense (ERF,D)										

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Exhibit R-3 Cost Analysis (page 1)								DATE: FEBRUARY 2005			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME						
RDT&E, N/BA-7			0708730N/NSRP ASE		9121/Maritime Tech, Ship Design & Systems Development Initiative						
Cost Categories	Contract Method & Type	Performing Activity & Location	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	Cost to Complete	Total Cost	Target Value of Contract
										0.000	
Technology Development	CA	University of New Orleans	1.730							8.074	
										0.000	
										0.000	
										0.000	
										0.000	
										0.000	
										0.000	
										0.000	
										0.000	
										0.000	
Subtotal Technology Development			1.730				0.000		0.000	8.074	
Remarks:											
Development Support										0.000	
Software Development										0.000	
Training Development										0.000	
Integrated Logistics Support										0.000	
Configuration Management										0.000	
Technical Data										0.000	
GFE										0.000	
Award Fees										0.000	
Subtotal Support			0.000		0.000		0.000		0.000	0.000	
Remarks:											

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7			PROJECT NUMBER AND NAME 2466/2811/NSRP ASE					
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	9.657	10.172	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Project 2466/2811 (NSRP ASE):</p> <p>The mission of the National Shipbuilding Research Program Advanced Shipbuilding Enterprise (NSRP ASE) is to manage and focus national research funding on technologies that will enhance U.S. commercial shipbuilding and ship repair competitiveness and reduce the cost of naval ships, construction, modification and repair.</p> <p>Industry has developed a landmark long range Strategic Investment Plan which will guide NSRP ASE investments. This Strategic Investment Plan provides a framework to guide collaborative research and development among all segments of the U.S. ship construction and repair industry, educational and research institutions, and Government. The objective is to assist the industry in achieving significant reduction in the cost and time required for both commercial and Navy ship construction, conversion, and repair. The recommended investment portfolio includes major initiatives that tie the strategic vision to proposed industry research through collaborative R&D. The major initiatives include: Shipyard Production Process Technologies, Business Process Technologies, Product Design and Material Technologies, Systems Technologies, Facilities and Tooling. Additionally, several critical success factors were found to cut across all of the major initiatives. These "Crosscut Initiatives" include Education and Training, Technology Transfer, Organizational Change, Environmental Protection and Human Resources.</p> <p>The collaboration of major shipyards that lead the program are: General Dynamics Electric Boat Corporation, General Dynamics Bath Iron Works, Northrop Grumman Newport News, Atlantic Marine, Northrop Grumman Ship Systems Ingalls, VT Halter Marine, Northrop Grumman Ship Systems Avondale, General Dynamics National Steel & Shipbuilding, Todd Pacific, Bollinger Shipyards Inc., and Bender Shipbuilding.</p>								

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7		PROJECT NUMBER AND NAME 2466/2811/NSRP ASE		
B. Accomplishments/Planned Program				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost		9.002		
RDT&E Articles Quantity		N/A		
<p>Initiate technology development projects in the six major initiate areas selected from Research Announcement 4. All projects will be performed jointly by the Executive Control Board (ECB) of the National shipbuilding Research Program (NSRP) to support current and future Navy Shipbuilding programs.</p>				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity	N/A			
<p>Complete remaining technology development projects in the six major initiative areas selection from Research Announcement Two and Two Prime: Projects to be completed include SPARS, Lean Manufacturing LASOX. All projects are being performed jointly by the Executive control board of the National Shipbuilding Research Program to support current and future Navy shipbuilding programs.</p>				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	0.554	0.500		
RDT&E Articles Quantity	N/A	N/A		
<p>Continue utilization of industry-led major initiative teams and NSRP panels to perform the execution and annual review of the Strategic Investment Plan, including technology projects, technology transfer among the Navy, shipbuilding industry, academia, equipment and material suppliers and the R&D community.</p>				

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B. Accomplishments/Planned Program				
	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	8.512			
RDT&E Articles Quantity	N/A			
Initiate technology development projects in the six major initiative areas selected from Research Announcement 3. Proposed projects include: Auto Generation, World Class Material Stds, SPARS, SPARS-2, ISE-2, ISE-3, Lean Manufacturing, Extended Lean Manufacturing, Lasox, WEMACS, Common Parts Catalog, Lean Simulation Training Exercises, Second Tier Design Enhancements. All projects will be performed jointly by the Executive Control Board (ECB) of the National shipbuilding Research Program (NSRP) to support current and future Navy Shipbuilding programs.				
	FY 04	FY 05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	0.250	0.250		
RDT&E Articles Quantity	N/A			
Continue transition of projects to shipbuilding programs.				
	FY 04	FY 05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	0.341	0.420		
RDT&E Articles Quantity				
Operate multi-agency support office to facilitate technology transfer between Government and industry.				

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C. PROGRAM CHANGE SUMMARY:				
Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY2005 President's Budget	10.068	10.265	0.000	0.000
FY 2006/2007 President's Budget	9.657	10.172	0.000	0.000
Total Adjustments	-0.411	-0.093	0.000	0.000
Summary of Adjustments				
SBIR/STTR Transfer	-0.273			
Miscellaneous Adjustments	-0.138	-0.093		
Subtotal	-0.411	-0.093	0.000	0.000
Schedule:				
Not Applicable.				
Technical:				
Not Applicable.				

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Exhibit R-2a, RD TEN Project Justification
(Exhibit R-2a, Page 11 of 13)

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Exhibit R-3 Cost Analysis (page 1)						DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT		PROJECT NUMBER AND NAME				
RDT&E, N/BA-7			0708730N/NSRP ASE		2466/NSRP ASE				
Cost Categories	Contract Method & Type	Performing Activity & Location	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
								0.000	
Technology Development	SS OT*	ECB NSRP**	9.316	VARIOUS	9.752			28.064	
	RX	ONR						0.110	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
Subtotal Technology Development			9.316		9.752		0.000	28.174	
Remarks: * Other Transactions IAW 10 USC 2371 ** Executive Control Board of the National Shipbuilding Research Program									
Gov't Support Serv/Other Agencies	IPR/WR	MARAD	0.018		0.030			0.078	
Support Services Revolving Accts	MIPR/WR	VARIOUS	0.268		0.370			0.807	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
								0.000	
Subtotal Support			0.286		0.400		0.000	0.885	
Remarks:									

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Exhibit R-3, Project Cost Analysis

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Exhibit R-3 Cost Analysis (page 2)						DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-7			PROGRAM PROJECT NUMBER AND NAME 0708730N 2466/NSRP ASE							
Cost Categories	Contract Method & Type	Performing Activity & Location	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation									0.000	
Operational Test & Evaluation									0.000	
Live Fire Test & Evaluation									0.000	
Test Assets									0.000	
Tooling									0.000	
GFE									0.000	
Award Fees									0.000	
Subtotal T&E			0.000		0.000			0.000	0.000	
Remarks:										
Contractor Engineering Support									0.000	
Technology Development	Reqn*	TRW/Schafer Corp.							0.000	
Technology Development		PSU/APL							0.000	
PM Support	MAC	JJMA	0.025						0.025	
NSNET		University of Michigan							0.400	
Travel			0.030		0.020				0.075	
SBIR Assessment									0.000	
Subtotal Management			0.055		0.020			0.000	0.100	
Remarks: * Procure under GSA Schedule										
Total Cost			9.657		10.172			0.000	29.159	
Remarks:										